

IN THE SPECIFICATION:

Please replace the ninth and tenth paragraphs of Page 4 with the following:

- [0020] Figures 3A-F shows another example of a device cross-section;
- [0021] Figures 4A-D shows another example of a device cross-section; and

Please replace the first paragraph of Page 13 with the following:

[0041] FIG. 3 Figures 3A-F illustrates another example of the invention including the MEA 10 also shown and described with reference to FIGS. 1 and 2. An Integrated Circuit (IC) 60 is shown sharing the substrate 12 with MEA 10. The IC 60 is preferably coupled to the MEA 10 by coplanar power connection 62 to the anode conductor 44. In the preferred embodiment, the conductive substrate 12 is a common connection to circuit ground for both the integrated circuit 60 and the cathode current collector 46 of the MEA 10. Alternatively a separate coplanar power connection (not shown) may be made between circuit ground and cathode current collector 46. The IC 60 may be any circuitry for which a self-contained power source is desired. Optionally, the IC 60 may also include a fuel cell control circuit. The preferred fuel cell control circuit provides sensing and control functions adapted for monitoring and regulating fuel cell operation.

Please replace the first and second paragraphs of Page 14 with the following:

of the invention. For example, referring to FIG. 4 Figures 4A-D, simplification of the MEA structure may be made if co-planar conductors 44, 46 are not required. Specifically, the via 42 (FIG. 2) and associated steps 118 may be omitted, and conductors 44 and 46 will be arranged at the front 16 and back 18 side of the wafer 12, respectively.

[0044] In FIG. 5, a view of the invention is shown including a body 500 about the MEA 10. It should be understood that a variety of packaging methods may be used to incorporate the MEA 10 of the invention into a PEM fuel cell assembly 502. For example, the invention is compatible with, but not limited to fuel cell and fuel cell stack apparatus as disclosed in the United States Patent Application of No. 6,500,577 Foster entitled "Modular Polymer Electrolyte Membrane Unit Fuel Cell Assembly and Fuel Cell Stack," ~~Ser. No. 09/745,566~~, filed Dec. 19, 2000, which is hereby incorporated into the present application for all purposes by this reference.